WIDE-RANGE TYPE THERMISTOR ELEMENT AND METHOD OF PRODUCING THE SAME

ABSTRACT OF THE DISCLOSURE

The thermistor element of the present invention is composed of a mixed sintered body $aM^1M^2O_3 \cdot bY_2O_3$ of a composition $M^1M^2O_3$ (wherein M^1 is Y, and M^2 is at least one element selected from the elements such as Cr, Mn, Ti, etc.) as a perovskite compound and Y_2O_3, wherein molar fractions a and b satisfy the relations $0.05 \leqq a < 1.0$, $0 < b \leqq 0.95$ and $a + b = 1$. Another wide-range type thermistor element of the present invention is composed of a perovskite compound $M^1(M^2M^3)O_3$, wherein M^1 is at least one element selected from the elements of the groups II and IIIA excluding La in the Periodic Table, and each of M^2 and M^3 is at least one element selected from the elements of the groups IIB, IIIB, IVA, VA, VIA, VIIA and VIII. a and b satisfy the relations $a + b = 1$ and $0 < b < 0.1$, where a is a molar fraction of M^2 and b is a molar fraction of M^3 in $M^1(M^2M^3)O_3$.